



# Haskell Forest Health Project

## Purpose and Need

The USDA Forest Service, Plumas National Forest (PNF), Beckwourth Ranger District (BKRd) is proposing management activities on approximately 2,892 acres within the Haskell Forest Health Project (hereafter, Haskell Project) area that aim to promote healthy, diverse, fire-resilient forests, reduce conifer encroachment within meadows, and improve water quality. Road maintenance, reconstruction, decommissioning and obliteration, and temporary road construction are also proposed as necessary to meet project access needs and reduce transportation system effects.

## Project Location

The Haskell Project is located approximately 4 to 6 miles south of Graeagle, California, and approximately 10 miles southwest of Portola, California on the Beckwourth Ranger District of the Plumas National Forest, in Plumas and Sierra Counties, California. The project area includes approximately 9,100 acres of National Forest System lands with approximately 2,892 acres proposed for treatment. Additional landmarks surrounding the project area are as follows: the project area is north of Haskell Peak, east of Mills Peak, south of Clio, and west of Calpine. The project area would encompass all or portions of Township 21 North, Range 12 East, Sections 1-3, 10-15, and 24; Township 21 North, Range 13 East, Sections 7, 8, 13-23, and 26-28, Mount Diablo Base Meridian (MDBM). Figure 1 shows the project area and general vicinity. Maps showing the proposed treatments are available on the project website:

<https://www.fs.usda.gov/project/?project=52569>

## Need for the Proposal

This project has three purposes:

1. Improve forest health and forest resiliency;
2. Improve meadow systems;
3. Improve water quality by reducing transportation system effects on watershed resources.

Each of these needs are described in detail below.



## Purpose and Need 1: Improve forest health and forest resiliency.

**Objective:** Improve forest health and promote resilience to drought, wildfire, and insects by:

- Reducing forest stand densities to improve resistance to insects and disease, fire and drought (SNFPA ROD, pp. 41, 48, 49);
- Actively restoring fire-adapted ecosystems by moving acres out of unnaturally dense conditions (SNFPA ROD, p. 34).
- Promoting the growth and development of stands with larger diameter trees (SNFPA ROD, pp. 31, 41, 49);
- Promoting shade-intolerant pines (sugar and Ponderosa) and hardwoods (SNFPA ROD, p. 52);

### Need for Action:

Stand exams have been conducted throughout the project area and demonstrate high stand densities. The absence of a natural fire regime and past management practices within the project area have changed both vertical and horizontal structure and age class distribution relative to historical forest structure. Increased tree density also means there is more competition for limited resources (water, sunlight, growing space and nutrients). Conifers with limited resources and a high degree of competition often have decreased vigor and growth, especially during drought conditions, and may become more susceptible to insect attack. Many stands within the project area have experienced varying levels of mortality associated with high stand densities, drought, insects and diseases. This typically results in higher levels of insect-caused mortality. Trees that succumb to bark beetle attacks are typically predisposed by other factors that compromise their health and vigor. There is therefore a need for ecological restoration towards conditions consistent within the natural range of variation.

Danny Cluck, Forest Health Protection (FHP) Entomologist also conducted field evaluations of the Haskell Forest Health Project area to evaluate current stand conditions, determine the impacts of forest insects and diseases on management objectives, and discuss proposed treatments. Key findings include:

- Overstocking of trees is putting many stands at risk to high levels of bark beetle-caused tree mortality during periods of drought;
- Mixed conifer stands have generally become overstocked with a high percentage of white fir that is inhibiting the regeneration of shade-intolerant pine species;
- High levels of recent white fir mortality associated with drought, disease and fir engraver beetle are common throughout the project area;
- White pine blister rust is infecting sugar and western white pine, increasing the susceptibility of mature trees to bark beetle attack and negatively impacting regeneration;

- Several red fir stands are declining due to a combination of root disease, dwarf mistletoe, and *Cytospora* canker;

Based on these findings, thinning vegetation and prescribed fire are highly recommended throughout the project area to reduce tree density as well as surface and ladder fuels. Reducing stand densities would lead to improved forest health and resiliency.

### Desired Conditions:

The desired conditions for forest health and resiliency are:

- Forest structure and function generally resemble pre-settlement conditions;
- High levels of horizontal and vertical diversity exist within 10,000 acre landscapes;
- Stands composed of uneven-aged vegetation groups, varying in size, species composition, and structure;
- Multi-tiered canopies, particularly in older forests, provide vertical heterogeneity;
- Dead trees, both standing and fallen, meet the habitat needs of old-forest-associated species;
- Where possible, areas treated for fuels also provide for the successful establishment of early seral stage vegetation. (SNFPA ROD, p. 41, 48).

## Purpose and Need 2: Improve meadow systems

**Objective:** Improve meadow systems by removing conifers that have encroached within meadows.

### Need for Action:

Both wet and dry meadows located in the Project area are experiencing varying levels of conifer encroachment. Woody plant invasion may be a response to warming temperatures, reduced snow pack, and fire suppression (Gross et. al. 2013) in addition to human-caused changes to the local hydrological regime (e.g. roads). Field evaluation indicates that, regardless of the relative contribution of these various factors, conifer encroachment is a contributing factor in the spatial decline of meadows within the project area.

### Desired Conditions:

The desired conditions for meadow systems are:

- Meadows are hydrologically functional. Sites of accelerated erosion, such as gullies or headcuts are stabilized or recovering (USDA 2004, p. 43).
- Species composition and structural diversity of plant and animal communities in riparian areas, wetlands, and meadows provide desired habitat condition and ecological functions.

## Purpose and Need 3: Improve water quality by reducing transportation system effects on watershed resources.

**Objective:** Protect water quality and riparian habitat by ensuring that existing roads meet Best Management Practices for drainage during rainfall and snowmelt runoff events. Identify roads that degrade water quality and implement corrective actions.

### Need for Action:

Roads play a vital role in providing access for resource management, wildland fire suppression, and public access for recreation use. However, unneeded and poorly located roads can impact water quality, disrupt the flow of water and fragment forest habitats. During the travel management planning process (USDA 2010), the routes not added to the National Forest System (NFS) transportation network were not physically closed. These non-system routes are not maintained. Several of them are adversely impacting watershed conditions and thus should be closed or obliterated. The interdisciplinary process for identifying road system needs and roads with resource damage includes a roads analysis consistent with legal requirements (36 CFR 212 Subpart A – Administration of the Forest Transportation System, 16 U.S.C. 551, 23, U.S.C. 205) and with standards and guidelines in the SNFPA ROD (SNFPA ROD, S&G #116, p. 65).

### Desired Conditions:

The desired conditions for improving water quality by reducing transportation system effects on watershed are:

- Access provided for wildland fire suppression, public visitation, and resource management by Forest Service personnel.
- Decreased number of roads that are causing resource damage.
- All NFS system roads and trails comply with the appropriate Best Management Practices.

## Laws, Regulations, and Policy

### Forest Plan Direction

The 1988 Plumas National Forest Land and Resource Management Plan (PNF LRMP, also called the Forest Plan), as amended by the 2004 Sierra Nevada Forest Plan Amendment Final Environmental Impact Statement and Record of Decision (SNFPA FEIS and ROD), guide the proposed action. The 2004 SNFPA Record of Decision (page 49-56) displays the standards and guidelines added to the 1988 Forest Plan.

The Haskell Project is comprised of land allocations directed by both the 1988 PNF LRMP and the 2004 SNFPA ROD. Each land allocation is comprised of appropriate standards and guidelines that meet a particular need (such as special habitat protection, recreation quality enhancement, or timber

production) while allowing other compatible activities. Table 1 lists the management prescriptions from the Forest Plan that apply to the project.

**Table 1. Management Prescriptions within the Haskell Project Area based on the Plumas Forest Plan.**

| Management Prescription                       | Acres in Proposed Treatment Units | Standard and Guideline  |
|---|-----------------------------------|---|
| Rx – 14 Visual Partial Retention Prescription | 2,467                             | Employ all silvicultural systems and harvest methods as appropriate provided landscape management principles and techniques are applied to achieve VQO (Visual Quality Objective) of Partial Retention (Standard and Guideline, p. 4-105) |
| Rx – 10 Visual Retention                      | 425                               | Employ all silvicultural systems and harvest methods as appropriate provided landscape management principles and techniques are applied to achieve VQO of Retention (Standard and Guideline, p. 4-95).                                    |

Land allocations in the 2004 SNFPA that apply to this proposal include: Wildland Urban Interface (WUI) Defense Zones and Threat Zones, California spotted owl (CSO) and Northern goshawk (NOGO) Protected Activity Centers (PACs), California spotted owl Home Range Core Areas (HRCAs), Critical Aquatic Refuges (CARs), general forest, and Riparian Conservation Areas (RCAs). There is also suitable habitat and Critical Habitat for Sierra Nevada yellow-legged frogs (SNYLF) within the project area.

## Categorical Exclusion

The Beckwourth Ranger District has determined that project goals appear to be consistent with three categories of actions listed in the Forest Service NEPA Handbook (FSH) that are excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS). The three categories are as follows:

1. 36 CFR 220.6 (e)(6). Timber stand and/or wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction.

*This category is applicable because project activities are being designed to improve timber stands and restore meadows. Proposed activities are designed to enhance forest health in forested stands and to restore meadows. Meadow complexes are a very important wildlife habitat on the forest. No herbicide treatment or construction of permanent roads would occur.*

2. 36 CFR 220.6 (e)(20). Activities that restore, rehabilitate, or stabilize lands occupied by roads and trails, excluding National Forest System roads and National Forest System trails, to a more natural condition that may include removing, replacing, or modifying drainage structures and ditches, reestablishing vegetation, reshaping natural contours and slopes, reestablishing drainage-ways, or other activities that would restore site productivity and reduce environmental impacts.



*This category is applicable because the obliteration of non-NFS roads and stabilization of stream banks will restore the area to a more natural state and improve hydrologic function.*

3. 36 CFR 220.6 (e)(1). Construction and reconstruction of trails.

*This category is applicable because we may pursue opportunities to convert system roads to multi-purpose trails.*

## Proposed Action

The Proposed Action was designed to meet the Purpose and Need discussed above: 1) improve forest health and forest resiliency; 2) improve meadow systems; and 3) improve water quality by reducing transportation system effects on watershed resources in the project area. The Proposed Action treatments include mechanical thinning, grapple piling, mastication, hand thinning, hand piling, underburning, construction of temporary roads, repair and maintenance of system roads, and decommissioning of non-system roads.

In addition to project specific design features and mitigations described below, the District would implement standard management requirements (SMRs). SMRs represent standard mitigations intended to minimize potential for adverse resource effects. Table 2 lists the treatment type and acres for the proposed vegetation management activities and Table 3 summarizes the proposed road activities.

**Table 2. Treatment Types within the Haskell Project Area.**

| Treatment Type     | Acres |
|--------------------|-------|
| Mechanical Thin    | 2,016 |
| Mechanical Fuels   | 541   |
| Meadow Improvement | 51    |
| Underburn Only     | 284   |
| Total              | 2,892 |

Note: Acres may vary slightly during the final layout due to topography, stand condition, and rounding, etc.

**Table 3. Summary of road actions proposed in the Haskell Project Area.**

| Actions   | Miles |
|---|-------|
| New temporary road construction                           | 5.0*  |
| Non-system route decommissioning                          | 4.1   |
| Road reconstruction for water quality and product removal | 25.0  |
| Road maintenance  | 25.0  |
| Total   | 59.1  |

\*Up to 5.0 miles proposed, actual construction may be less. Not all temporary roads are mapped at this time. Temporary roads would be obliterated after project implementation is complete.

## Improve forest health and forest resiliency

### *Mechanical Thinning*

Mechanical thinning treatments would entail the use of ground-based logging systems on approximately 2,016 acres within the Haskell project area. In general, ground-based logging equipment would remove trees less than 20 inches diameter (at) breast height (DBH) using whole tree yarding. Whole tree yarding involves removal of the entire tree, including tops and main branches to reduce activity fuels accumulation within treatment units. Trees ranging from 20 to 30 inches DBH may be hand felled, bucked to log lengths, limbed, topped, and skidded to the landing. No trees greater than 30 inches DBH would be removed except in unavoidable cases for operational safety due to Occupational Safety and Health Administration (OSHA) regulations. Ground-based logging equipment would generally be restricted to slopes less than 35 percent slope. However, slopes 35 to 45 percent may be treated depending on existing conditions (slope position, road location, etc.) and soil types.

Mechanical thinning treatments and associated activities would be tailored to achieve Visual Quality Objectives (VQOs) within areas designated by the Plumas National Forest Land and Resources Management Plan (hereafter, Forest Plan, USDA 1988) as visual retention (Rx-10) and visual partial retention (Rx-14).

### **Variable Density Thinning**

Variable density thinning (VDT) is a compilation of various thinning treatment components: a) dense clumps of trees, b) canopy openings where few or no trees exist, c) the matrix – areas between clumps and openings with varying tree densities. A percentage of smaller trees would be left for structural diversity. Residual tree density within the matrix and the placement of clumps and openings would be influenced but not dictated by topography such as slope, slope position, and aspect in addition to microsites (unique topographic features). Table 4 describes topographic and microsite influences on tree density and distribution.

**Table 4. Topographic and microsite influences on tree distribution.**

| <b>Topographic Influences</b> |  |
|-------------------------------|--|
| Slope Position                | Higher densities would occur in drainages, tree densities would decrease mid-slope and decrease further on ridgetop positions. |
| Slope                         | Flatter slopes would have higher densities and as slope increases tree densities decrease.                                     |
| Aspect                        | Northeastern aspects would support higher densities of trees while southwesterly aspects would have lower densities.           |
| <b>Microsites</b>             |  |
| Seeps/Depressions             | May support pockets or small groups of higher densities of trees.  |
| Knobs/Areas of Poor Soils     | Would sustain lower tree densities.  |



Variable density thinning would promote heterogeneity within stands and across the landscape by increasing vertical and horizontal diversity (a mixture of clumps, openings, and matrix) that provides a variety of wildlife habitat elements, while creating a fire-resilient stand (reduction in canopy continuity, surface and ladder fuels). Canopy cover and basal area would be highly variable across treatment units, but would follow the Standards and Guidelines in the Forest Plan, as amended by the 2004 Sierra Nevada Forest Plan Amendment Record of Decision (SNFPA ROD, USDA 2004). Wildlife structural diversity patches would be captured in the clumps and openings as part of the variable density thinning design prescription. Table 5 lists the design criteria for the mechanical thinning treatments.

**Table 5. Design criteria for mechanical thinning actions.**

| Criterion   | Design   |
|---|--|
| Mechanical Thinning                                     | CWHR types 4M, 4D, 5M, 5D, and 6<br>Retain 40% of existing Basal Area.<br>Retain 40-50% canopy cover<br>Avoid reducing canopy cover by more than 30%.  |
| VDT Clumps (dense groups of trees)                      | Clumps range in size from 5 to 10 trees up to 1/4 of an acre.<br>Cover up to 15% of each proposed treatment unit.<br>Comprised of intermediate to large dominant, codominant trees, preferably shade-intolerant conifers depending on forest type and species composition.<br>Generally higher basal area and canopy cover than stand “average”.<br>It is appropriate for trees to have interlocking crowns.<br>Incorporate wildlife habitat trees (e.g. those with forks, crooks, existing cavities, brooms, nests and snags).<br>Ladder fuels removed to reduce potential torching.<br>Desired residual canopy cover >50%.<br>Retain clumps in irregular shapes.   |
| VDT Openings  | Openings vary in size from 3 to 5 trees up to 1/4 of an acre.<br>Cover up to 15% of each proposed treatment unit.<br>Expand/enhance existing openings dominated by desired conifer regeneration.<br>Create around or adjacent to dominant/codominant shade-intolerant conifers, desired seed sources, legacy trees or clumps of these trees (trees generally >24” DBH)<br>Establish where existing structure is generally uniform and lacks structural diversity.<br>Utilize desired shrub species (e.g. Scouler’s willow) as anchor points for creation of openings.<br>Create openings with irregular shapes.  |
| VDT Matrix Thinning (areas between clumps and openings) | Variable tree spacing and densities.<br>Healthy, fire resistant shade-intolerant conifers (pine species, Douglas-fir) within all size class would be preferentially retained along with scattered shade-tolerant trees.<br>Thinning would occur through all size classes <30” DBH, but would focus on removing suppressed, intermediate, and codominant trees, and trees of poor health and vigor.<br>Canopy cover would range from 30-60% (depending on existing conditions), averaging approximately 40-50% across the treatment unit.<br>Increased tree removal around fire-resistant legacy trees (generally >24” DBH) to provide protection from torching.<br>Release of hardwood species and select shrub species.<br>Removal of trees ≥30” DBH would only occur in unavoidable circumstances regarding operational safety due to Occupational |

| Criterion   | Design   |
|---|--|
|   | Safety and Health Administration (OSHA) regulations. In such instances a Forest Service Representative must approve their removal.   |
| California Spotted Owl and Northern Goshawk Protected Activity Centers (PACs) | No mechanical thinning treatments within California spotted owl and Northern goshawk PACs.   |
| Follow-up Fuel Treatments   | Grapple piling, mastication, hand thinning, hand piling and/or underburning may follow initial treatment if needed to meet project objectives.   |
| Landings and Skid Trails  | Locate landings so as to maintain a VQO of retention (Rx10) along Highway 89 viewsheds or partial retention (Rx14), consistent with Forest Plan prescriptions.<br>Landings would range in size from 1/2 acre to 1 acre depending on topography and accessibility to treatment units.<br>Use existing landings, skid trails, and temporary roads, where feasible.<br>Designated crossings would be utilized to cross existing FS system recreation trails.<br>Rehabilitate skid trails, designated crossings, landings and temporary roads after implementation is completed. |
| Snag Retention  | Within Sierra mixed conifer forest type, retain four of the largest snags per acre.<br>Within the red fir forest type retain six of the largest snags per acre.<br>Snags greater than 15 inches DBH and 20 feet in height would be used to meet this guideline.  |
| Down Woody Material Retention   | Emphasize retention of wood in the largest size classes and in decay classes 1, 2, and 3   |

### *Mechanical Fuels Treatments*

Mechanical treatments to treat hazardous fuels may include: grapple piling, mastication, hand thinning, and hand piling, and are proposed on approximately 541 acres.

Grapple piling is an effective treatment for reducing elevated surface fuel loading on ground up to 45 percent slope with short pitches of 100 feet slope distance up to 50 percent. Grapple piling equipment generally involves a tracked excavator that can physically move dead and downed fuels, live brush, and live trees up to 2.0 inches DBH. Grapple piling is generally used where the dominant vegetation is brush with scattered individual or clumps of tree regeneration. Grapple piling would reduce surface fuel continuity and loading (dead and down material) while maintaining a mosaic of brush clumps to benefit wildlife.

Hand thinning combined with grapple piling may be utilized in areas with heavy brush or an elevated number of trees less than 10.0 inches DBH to improve species composition, structure, health, growth, and reduce ladder fuels. Hand thinning would focus on the removal of brush and trees less than 10.0 inches DBH. Grapple piling would entail amassing activity-created slash in addition to existing surface fuels (dead and down trees and live brush). Grapple piles and hand piles would subsequently be burned during an appropriate burn window.

Mastication treatments would utilize different types of equipment to chop, chip, crush or otherwise break apart woody material such as small trees and dead and down wood. Masticated material would be left on the ground within treated units. Mastication may be used in place of hand thinning with grapple piling where there is not a strong brush component.

Hand thinning with hand piling might be utilized on steep slopes, in areas inaccessible to heavy machinery, or within meadows. Trees less than 10.0 inches DBH would be thinned to improve species composition, structure, health, growth, reduce ladder fuels, or decrease conifer encroachment within meadows. Activity-created slash in addition to existing down woody material would then be hand piled. Slash created during implementation in meadows would be hand carried and piled outside of meadow boundary. Hand piles would be burned during an appropriate burn window.

These treatments and associated activities would be tailored to achieve Visual Quality Objectives (VQOs) within areas designated by the Forest Plan as visual retention (Rx10) and partial retention (Rx14) management prescriptions. Table 6 summarizes the design criteria for fuels treatments.

**Table 6. Design criteria for fuel treatments.**

| Criterion                                  | Design  |
|--|---|
| Mechanical Thin – meadow encroachment zone | <ul style="list-style-type: none"> <li>Remove conifers &lt;30.0" DBH within the encroachment zone</li> <li>Retain snags and consider retaining wildlife habitat trees (e.g. those with nests, forks, crooks, existing cavities, or brooms).</li> </ul>  |
| Grapple Piling                             | <ul style="list-style-type: none"> <li>Pile dead and downed material and live brush.</li> <li>Maintain mosaic of brush clumps for wildlife habitat.</li> <li>Grapple pile live trees up to 2.0" DBH.</li> <li>Slopes up to 45% would be treated.</li> </ul>   |
| Hand Thinning with Grapple Piling          | <ul style="list-style-type: none"> <li>Cut conifer trees &lt;10.0" DBH by hand thinning and pile with mechanical equipment.</li> <li>Pile activity-created slash, existing slash, and live brush. Maintain large woody debris component and brush mosaic for wildlife habitat.</li> <li>Slopes up to 45% would be treated.</li> </ul> |
| Hand Thinning with Hand Piling             | <ul style="list-style-type: none"> <li>Cut conifer trees &lt;10.0" DBH. On steeper slopes cut conifers up to 8.0" DBH.</li> <li>Hand pile activity-created slash and existing slash.</li> <li>Retain down woody material in largest size class and decay classes 1-3.</li> </ul>  |
| Hand Thin Meadows                          | <ul style="list-style-type: none"> <li>Cut all live conifers 3.0 to 29.9" DBH within meadows.</li> <li>Conifers would be lopped and scattered, or hand carried and hand piled outside the meadow, depending on restrictions relevant in the meadow.</li> <li>Retain all snags within meadows.</li> </ul>                              |
| Follow-up Fuel Treatments                  | <ul style="list-style-type: none"> <li>Grapple and hand piles would be burned during appropriate burn windows.</li> <li>Except where prohibited, fire would be allowed to creep between piles to provide for a concurrent understory burn.</li> <li>All units would be evaluated for underburning post-treatment.</li> </ul>          |
| Down Woody Material Retention              | <ul style="list-style-type: none"> <li>Emphasize retention of wood in the largest size classes and in decay classes 1, 2 and 3.</li> </ul>  |

### *Underburn*

Underburning is proposed as a stand-alone treatment on 284 acres. These acres are planned as underburn only due to the fuel conditions within the units. The fuel loadings are lighter with less ladder fuels present than units that are proposed for mechanical treatments or hand thinning. Underburning is proposed on a total of approximately 2,608 acres as a secondary treatment (follow-up treatment after mechanical or hand thinning treatments).

Underburning would perform benefits to the ecosystem including re-introducing fire into a fire-adapted ecosystem and reducing hazardous fuel loading. The underburn would therefore provide protection from the spread of future high-intensity fire.

## Improve Meadow Systems

The goal of meadow treatments is to improve hydrologic function, plant and animal species composition, and plant community structural diversity. We propose to achieve this goal by reducing conifer encroachment and returning fire to the meadow ecosystem. Where treatment units share a common boundary with meadows, historical meadow boundaries would be delineated to determine the extent of conifer encroachment. Historical meadow boundary delineators may include the presence of sparse meadow plants, slope breaks, or historical photos. The area between the historical meadow boundary and the current meadow boundary where tree growth has advanced would define the tree encroachment zone. Meadow buffers would be measured from the historical edge and extend up to a maximum of 50 feet into adjacent forested stands. Within meadow buffers, canopy cover would be reduced to 20-30% to minimize seed sources associated with encroaching trees. Lodgepole pine would be removed; some sugar pine, ponderosa pine, or Jeffrey pine may be retained. Some clumps of trees may be retained with a canopy cover of 40%, as described below. Piled material resulting from the conifer removal, would be burned. Underburning within meadows would be considered as a secondary treatment to reduce conifer regeneration, promote herbaceous vegetation, and reduce fuels. McNair Meadow and Bear Wallow meadows would be treated as described below. Additional meadows identified during field operations within treatment units may be treated upon specialist review and approval.

### *McNair Meadow*

Where applicable and dependent upon ground conditions, mechanical tree removal would occur within the encroachment zone but not inside the current existing meadow boundary. All conifers less than 30 inches DBH would be removed within the encroachment zone. Where mechanical treatment is not feasible, hand thinning would be applied and trees would be hand carried and hand piled outside the historical meadow boundary. In the event a raptor nest tree is identified in the encroachment zone, the nest tree and trees adjacent to the wildlife tree would be retained.

Conifers within the meadow interior would be hand-felled. Tops and limbs from trees less than 20 inches DBH would be hand carried and hand piled outside the historic meadow edge. Tops and limbs from conifers greater than 20 inches DBH would be lopped and scattered. Boles greater than 10 inches DBH

would be felled and left within the meadow as large down woody debris. Boles less than 10 inches DBH would be bucked, hand carried, and hand piled outside the historical meadow edge. Table 7 describes the actions proposed for conifers within the meadow interior.

**Table 7. Actions proposed for conifer removal within meadow interior.**

| DBH (inches) | Boles                     | Tops and Limbs            |
|--------------|---------------------------|---------------------------|
| <10          | Hand carried & hand piled | Hand carried & hand piled |
| 10-20        | Fall and leave            | Hand carried & hand piled |
| >20          | Fall and leave            | Fall and leave            |

Within the meadow buffer, trees would be mechanically thinned to reduce canopy cover to 20-30%. Fire-resistant, shade-intolerant species would be preferentially retained. Trees exhibiting old growth or desirable wildlife characteristics would be considered for retention. Where wildlife trees are retained within the buffer, a clump may be retained with surrounding the wildlife tree with canopy cover of 40%, if feasible. Wildlife trees would be identified and marked by the wildlife crew prior to implementation.

Snags would be retained within the encroachment zone, meadow interior, and meadow buffer unless removal is necessary for safety or operability. Opportunities to create snags greater than 20 inches DBH would be evaluated.

### *Bear Wallow Meadow*

Bear Wallow Meadow is within a California spotted owl (CASPO) PAC and overlaps suitable habitat for Sierra Nevada yellow-legged frog (SNYLF) within the historical range for SNYLF. The following proposed actions within Bear Wallow follow the Sierra Nevada Forest Plan Amendment (SNFPA) standards and guidelines for treating within a PAC and the US Fish and Wildlife Service (USFWS) Programmatic Biological Opinion for the SNYLF. Proposed treatments in this meadow have been designed to improve meadow health, hydrology, and SNYLF habitat by reducing conifer encroachment.

- 6-inch DBH limit for hand thinning within PAC: conifers less than 6 inches DBH would be hand-felled within the encroachment zone, meadow interior, and meadow buffer.
- Felled material would be hand carried, hand piled, and subsequently burned outside the historic meadow edge or 82-foot SNYLF buffer, whichever is farthest.

### *Meadows Possessing SNYLF Habitat in Historical SNYLF Range*

The same treatments described for McNair Meadow would be applied with the following exceptions:

- An 82-foot SNYLF buffer would be placed around suitable habitat.
- The only treatment within the SNYLF buffer would be hand treatment. There will be no mechanical treatment nor prescribed fire within the SNYLF buffer.

- All hand carried and hand piled material would be burned outside the historic meadow edge or the 82-foot SNYLF buffer, whichever is furthest.

### *Other Meadows*

Additional meadows identified within treatment units would be assessed by specialists. The same treatments proposed for McNair Meadow would be proposed. Resource concerns specific to each meadow may require additional restrictions.

## Improve water quality by reducing transportation system effects on watershed resources

The road-related work proposed with this project is in accord with the Plumas National Forest Public Motorized Travel Management Plan. In summary, a total of approximately 4.1 miles of non-system roads would be decommissioned, closed and/or obliterated; approximately 50 miles of National Forest System roads would have reconstruction and maintenance to facilitate fuels and silviculture activities and improve drainage features; and up to 5.0 miles of new temporary road would have construction, then be subsequently restored. Table 8 displays the design elements for road access.

**Table 8. Design criteria for road activities for the Haskell Project.**

| Criterion                 | Design  |
|---------------------------|---|
| Decommission/Obliteration | <ul style="list-style-type: none"> <li>• Decommissioning/Obliteration may involve recontouring, subsoiling or abandonment. Abandonment is appropriate where the road has become completely overgrown with vegetation. Decommissioning/Obliteration may also involve removing drainage structures, restoring vegetative cover, blocking access or some combination of these treatments.</li> </ul> |
| Maintenance               | <ul style="list-style-type: none"> <li>• Maintenance would consist of brushing, blading the road surface, improving drainage.</li> </ul>  |
| Reconstruction            | <ul style="list-style-type: none"> <li>• Reconstruction may involve the removal of all trees from within the road prism as well as brushing, blading the road surface, improving drainage and replacing/upgrading culverts where needed.</li> </ul>   |
| New Temporary Roads       | <ul style="list-style-type: none"> <li>• Temporary roads would be constructed for project work and subsequently restored when the fuels and vegetation management work is complete.</li> </ul>  |

## Multi-purpose recreational trails

Where opportunities exist to convert National Forest System roads to trails, those actions would be considered. This would provide increased recreation opportunities within the project area for motorized and non-motorized users.

## Public Collaboration

Notice of pending action first appeared in the Plumas National Forest quarterly Schedule of Proposed Actions (SOPA) as the “Haskell Project” in September of 2018. The Beckwourth Ranger District hosted a

public field trip to the project area on September 24, 2018 to discuss the development of the Proposed Action. Ten members of the public attended the field trip including a representative of the Plumas County Fire Safe Council.

Scoping was initiated with publication of a legal notice in the *Portola Reporter* on September 5, 2018 and in the *Sierra Booster* on September 6, 2018. The purpose of the scoping process is to inform the public about the Purpose and Need and Proposed Action, to seek different points of view, and to evaluate issues to be addressed during the analysis. A scoping packet was mailed to Native American entities including federally recognized tribal governments, and Native American organizations/non-profit groups. Over 400 scoping packets were sent to various individuals, organizations and government agencies via mail and electronic mail. Instructions on how to comment are included in the legal notices and in the cover letter included with the scoping packet. The Forest Service initially requested that comments be submitted by October 26 and subsequently extended the scoping period to November 9, to allow the public time to review the Proposed Action.

## **Project Schedule**

The responsible official expects to make a decision on this project in the winter of 2018. Implementation may begin as early as spring of 2019.